

Name Key

Date _____

Extra Quiz Review

Use the picture to the right to identify the parts of the circle.

$m\angle MOT = 90^\circ$

1. PQ Chord

2. RS Secant

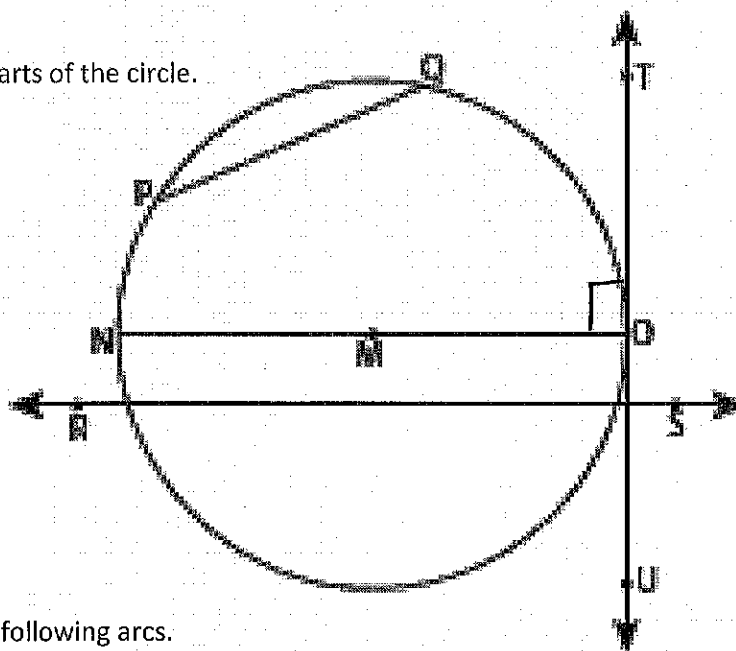
3. TO Tangent

4. NO Diameter

5. PQ Minor Arc *answer varies*

6. QON Major Arc *varies*

7. NPO Semicircle *varies*

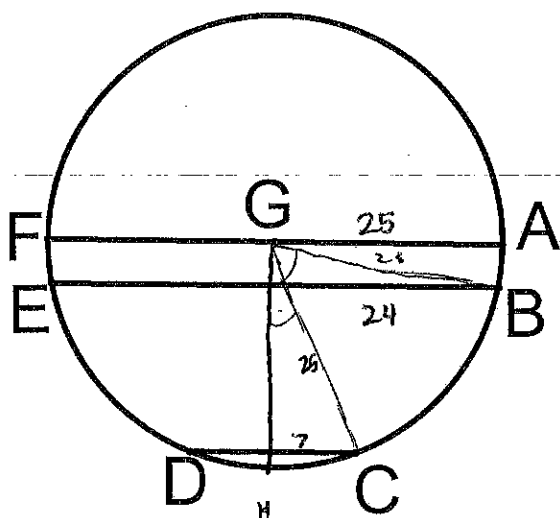


Use SOCAHTOA to find the measures of the following arcs.

8. 57.4° $m\widehat{BC}$

9. 33.8° $m\widehat{AB}$

The lengths of the parallel chords are:
50, 48, and 14



$$\sin(\angle BGH) = \frac{24}{25} \approx 73.7^\circ$$

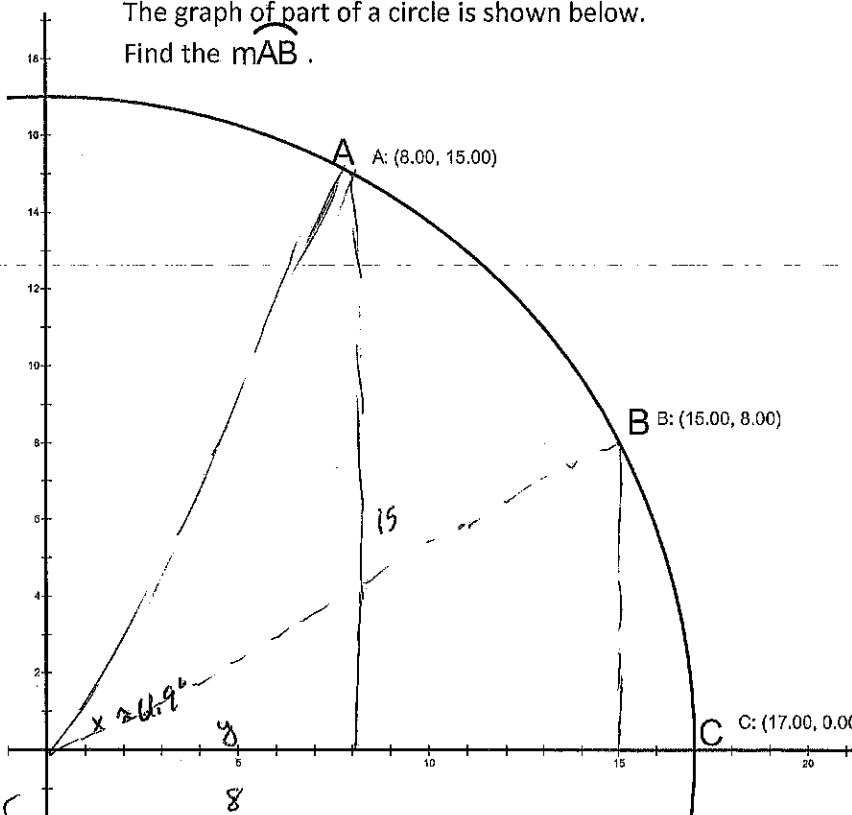
$$m\angle BGH \approx 73.7^\circ \approx m\widehat{BH}$$

$$\sin(\angle DGC) = \frac{7}{25}$$

$$m\angle DGC \approx 16.3^\circ \approx m\widehat{CH}$$

$$\begin{array}{r} 73.7 \\ -16.3 \\ \hline 57.4^\circ \end{array}$$

The graph of part of a circle is shown below.
Find the $m\widehat{AB}$.



$$\tan x = \frac{15}{8}$$

$$x \approx 61.9^\circ$$

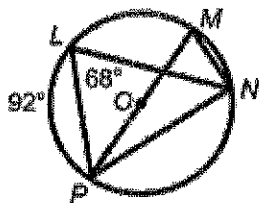
$$\tan y = \frac{8}{15}$$

$$y \approx 28.1^\circ$$

$$\begin{array}{r} 61.9 \\ -28.1 \\ \hline 33.8^\circ \end{array}$$

Solve.

10. $m\angle LNP = 46^\circ$ $\frac{1}{2} 92$
 $m\widehat{NP} = 136^\circ$



Round x to the nearest tenth

$7x+1 = 75$

$7x = 74$

$x \approx 10.6$

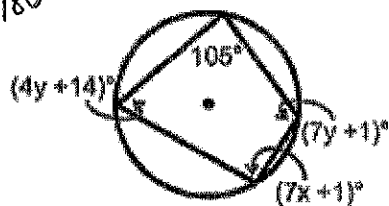
11. $x = 10.6$; $y = 15$

$4y + 14 + 7y + 1 = 180$

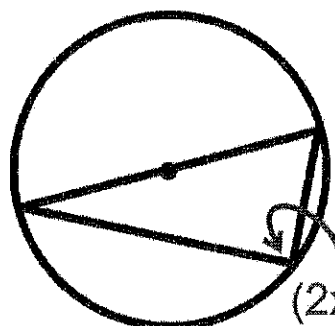
$11y + 15 = 180$

$11y = 165$

$y = 15$



12. $x = 42$ (the diameter is given)



$2x+6 = 90$

$2x = 84$

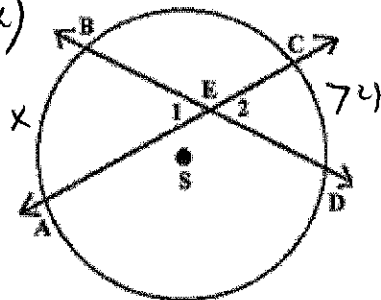
$x = 42$

13. $m\angle 2 = 62^\circ$; $m\widehat{CD} = 74^\circ$; $m\widehat{AB} = 50$

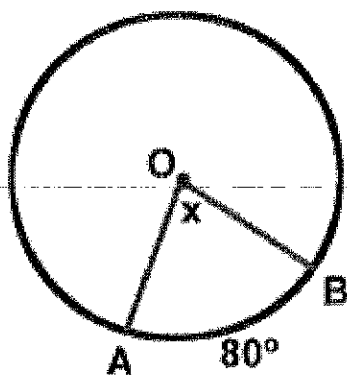
$62 = \frac{1}{2}(74+x)$

$124 = 74+x$

$50 = x$

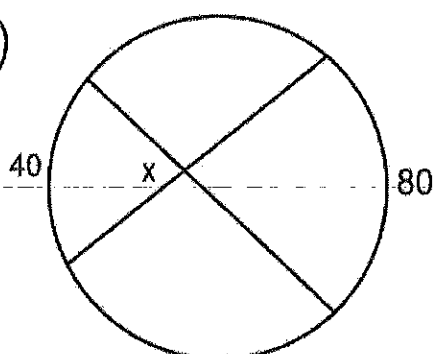


14. $x = 80^\circ$

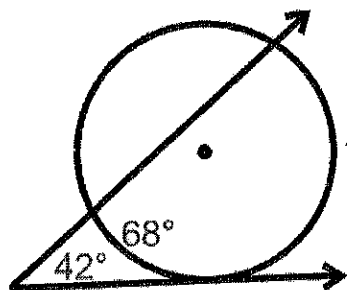


15. $x = 60^\circ$

$x = \frac{1}{2}(40+80)$
 120



16. $x = 152^\circ$



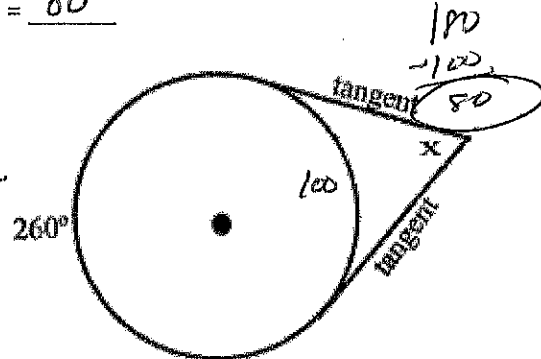
$42 = \frac{1}{2}(x-68)$

$84 = x-68$

$x = 152$

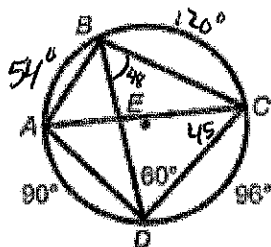
17. $x = 80^\circ$

$\frac{360}{-260}$
 100



or $x = \frac{1}{2}(260-100)$
 80° 160

18. Quadrilateral $ABCD$ is inscribed in $\odot E$. Find: $m\angle DBC = \underline{48^\circ} \quad \frac{1}{2} 96$



$$m\widehat{BC} = \underline{120^\circ} \quad 60 \times 2$$

$$m\widehat{AB} = \underline{54^\circ} \quad 360 - 306$$

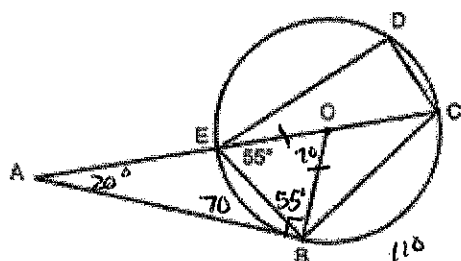
$$m\angle ACD = \underline{45^\circ} \quad \frac{1}{2} 90$$

$$m\angle ADC = \underline{87^\circ} \quad \frac{1}{2} 174$$

$$m\angle ACB = \underline{27^\circ} \quad \frac{1}{2} 54$$

\overline{EC} is the diameter

19. \overline{AB} is tangent. Find the following:



$$m\angle EBO = \underline{55^\circ} \quad \text{isosceles } \triangle (BAT)$$

$$m\angle EOB = \underline{70^\circ} \quad 180 - 110$$

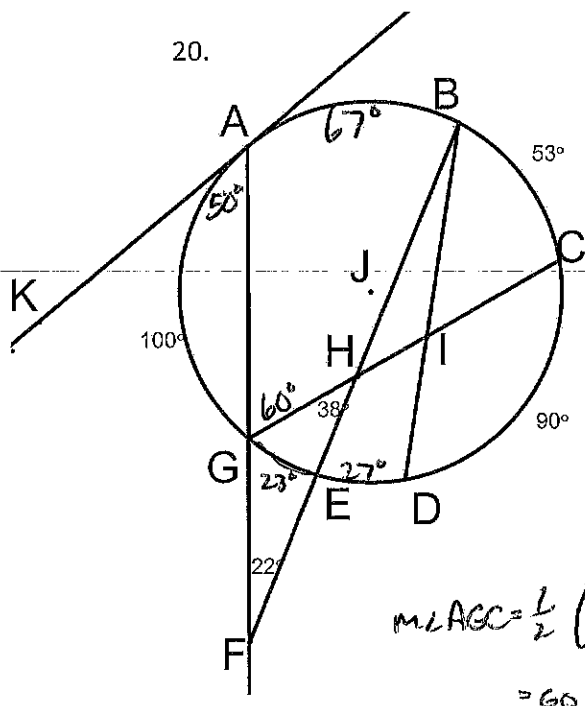
$$m\widehat{BC} = \underline{110^\circ} \quad 180 - 70 \text{ or } 55 \times 2$$

$$m\angle ABO = \underline{90^\circ} \quad \text{tangent}$$

$$m\angle A = \underline{20^\circ} \quad \frac{1}{2} (110 - 70) \text{ or } 90 - 70$$

$$m\angle EDC = \underline{90^\circ} \quad \text{Diameter}$$

- 20.



Given: $m\widehat{AG} = 100^\circ$, $m\widehat{CD} = 90^\circ$, $m\widehat{BC} = 53^\circ$,
 $m\angle GHE = 38^\circ$, $m\angle AFB = 22^\circ$

Find

$$m\angle KAG = \underline{50^\circ} \quad \frac{1}{2} 100$$

$$m\widehat{GE} = \underline{23^\circ} \rightarrow 38 = \frac{1}{2} (53 + m\widehat{GE})$$

$$m\widehat{AB} = \underline{67^\circ}$$

$$m\angle AGC = \underline{60^\circ}$$

$$m\widehat{DE} = \underline{27^\circ} \quad 360 - 333$$

$$m\angle CID = \underline{128.5^\circ}$$

$$m\angle B = \underline{13.5^\circ}$$

$$m\angle AGC = \frac{1}{2} (67 + 53) = 60$$

$$\frac{1}{2} 27$$

$$m\angle CID = \frac{1}{2} (90 + 167) = 128.5$$